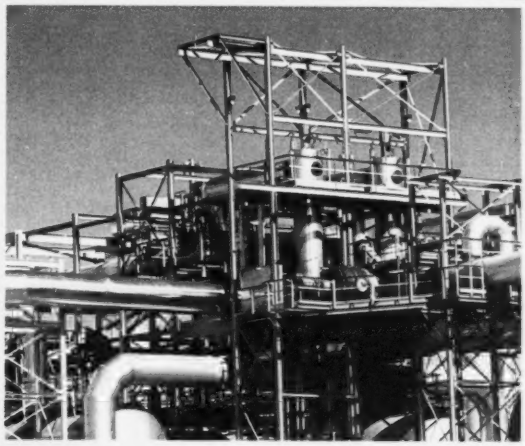
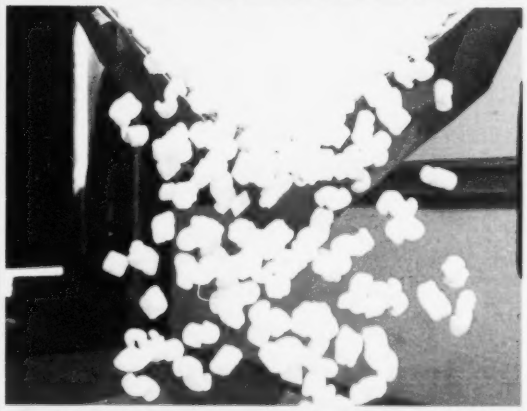
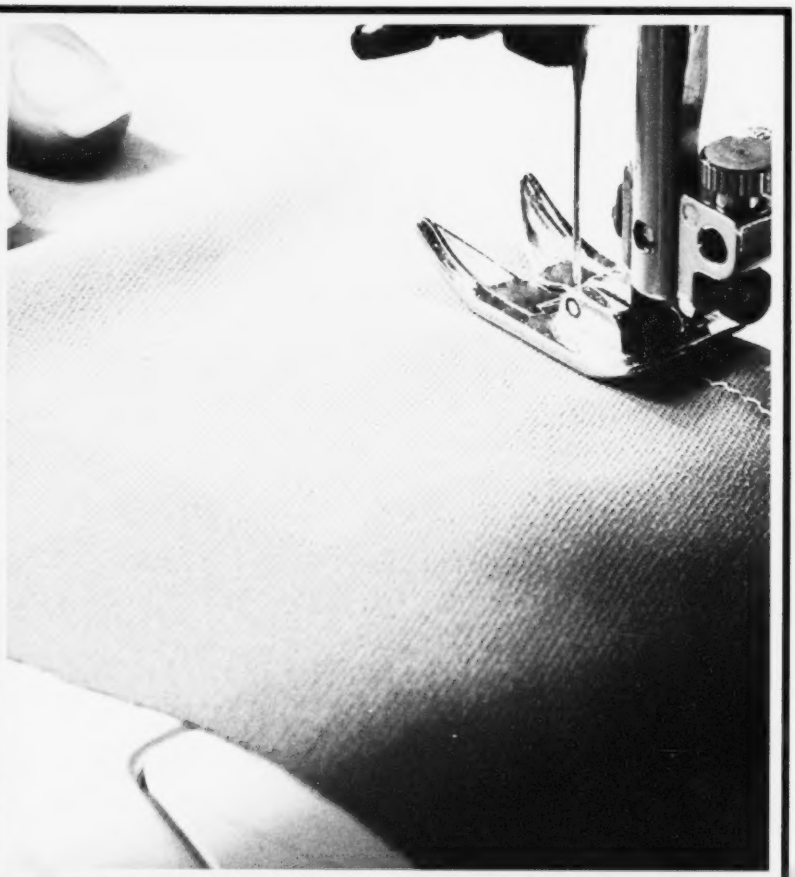






OCCUPATIONAL INJURIES AND DISEASES IN ALBERTA

Lost-Time Claims, Disabling Injury Claims and Claim Rates

Manufacturing, Processing and Packaging Sector 2005 to 2009

WORK SAFE ALBERTA

Government of Alberta

Summer 2010

TABLE OF CONTENTS

Highlights 2

1. Introduction 5

2. Provincial Summary 7

3. Industry Sector Summary 10

4. Industry Sector Analysis 13

5. Demographics of Injured Workers 30

6. Injury and Disease Analysis 32

7. Occupational Fatalities 41

8. Certificate of Recognition 45

References 47

Appendix A: Terms, Definitions, and Formulas 48

Appendix B: Manufacturing, Processing and Packaging Industries WCB Codes 52

Contact Information 55

HIGHLIGHTS

Lower lost-time and disabling injury rates in 2009.

- The 2009 lost-time claim rate for the Manufacturing, Processing and Packaging sector decreased by 26.2% to 1.65 per 100 person-years worked from 2.24 in 2008. The average lost-time claim rate for all sectors in the province was 1.69 per 100 person-years worked. The duration rate in 2009 was 36 days lost per 100 person-years worked, an 11.0% decrease from 2008 and lower than the provincial average for all industry sectors, 40 days lost.
- The disabling injury rate decreased by 23.4% in 2009 to 4.42 per 100 person-years worked. The average disabling injury rate for all sectors in the province was 3.09 per 100 person-years worked.
- The decreases in the lost-time claim rate and disabling injury rate in 2009 were the result of decreases in the number of injury claims. Lost-time claims decreased by 36.4% and disabling injury claims by 34.1%. The person-years worked estimates decreased by 13.9%, meaning that the number of injury claims decreased at a greater rate than employment in the sector.
- The 2009 fatality rate for the Manufacturing, Processing and Packaging sector was 101 per million person-years worked, a decrease from 103 per million person-years worked in 2008. The average fatality rate for all sectors in the province in 2009 was 71 per million person-years worked.

Largest employers experienced the lowest lost-time claim rate.

- Employers with 100 or more person-years worked had the lowest lost-time claim rate in 2009, at 1.27 per 100 person-years worked. Employers with 10 to 19 person-years worked had the highest lost-time claim rate, at 2.59 per 100 person-years worked, followed by employers with 20 to 39 person-years worked at 2.26.
- Employers with 100 or more person-years worked had the highest disabling injury rate at 4.88 per 100 person-years worked, followed by employers with 20 to 39 person-years worked, 4.20.

Injury rates decreased in most sub-sectors.

- Lost-time claim and disabling injury rates decreased in most Manufacturing, Processing and Packaging sub-sectors. The Furniture and Allied Products sub-sector, and the Printed and Published Products sub-sector displayed increases in lost-time claim and disabling injury rates in 2009.

- The Gases, Fertilizer and Petrochemical - Refining and Manufacturing sub-sector had the lowest lost-time claim and disabling injury rates in 2009 at 0.15 and 0.58 per 100 person-years worked respectively.
- The Manufacturing, Processing and Packaging sector accounted for 10.9% of the person-years worked in the province, 10.6% of the lost-time claims, 17.8% of modified work claims and 15.6% of the disabling injury claims.

In 2009, sprains, strains and tears was the most common nature of injury.

- Sprains, strains and tears continued to be the leading nature of injury, accounting for 39.8% of the disabling injury claims submitted in the Manufacturing, Processing and Packaging sector in 2009. However, the Manufacturing, Processing and Packaging sector had higher proportions for disabling injury claims for open wounds, indicating a likelihood 2.1 times higher than the average for all sectors.
- The back (including spine and spinal cord) was the most commonly injured body part, accounting for 18.7% of all disabling injury claims. Disabling injury claims connected with the eyes displayed a proportion that was 2.6 times the average for all sectors. Injuries to fingers or fingernails and the wrists and hands displayed proportions that were 2.3 and 1.7 times higher than the average for all sectors.
- The primary source of injury causing disabling injury claims in 2009 were persons, plants, animals and minerals, accounting for 24.1% of the disabling injury claims. This was followed by parts and materials, 20.3%. Compared to the average for all sectors in the province however, the injury category hand tools - powered displayed a proportion that was 2.2 times higher than the average for all sectors. Parts and materials, and machinery displayed proportions that were 2.2 and 2.1 times higher than the average for all sectors.
- In 2009, the two most common types of event or exposure were bodily reaction or exertion and contact with objects and equipment, accounting for 43.7% and 38.0% of disabling injury claims in the Manufacturing, Processing and Packaging sector. Disabling injury claims caused by rubs or abrasions had a frequency that was 2.4 times the average for all sectors. Repetitive motion injuries and caught in object had proportions that were 2.9 and 2.4 times higher than the average for all sectors.
- The median work days lost was six and the average days lost per claim was 22. For all sectors of the province, the median days lost and average days lost was seven and 24 days lost per claim respectively.

A few notes about this report:

- This report presents 2009 data beside 2008 data to help with comparisons. Additional historical data are presented where possible.
- Information presented in this report is based on incidents that occurred during 2009 and were accepted as lost-time or modified work claims by Workers' Compensation Board – Alberta (WCB) as of March 31, 2010.
- Injury claim rates based on a small number of person-years worked are too volatile to make valid comparisons over time. Therefore, claim rates are not calculated when there are fewer than 40 person-years worked. Duration rates are also volatile when based on a small number of lost-time claims. Duration rates are not calculated when there are fewer than 30 lost-time claims.
- Estimates of year-over-year change for rates presented in this report are calculated using unrounded figures and may not match those produced from rounded figures. Percentages displayed in tables may also not total 100, due to rounding.
- Throughout the report, the lost-time claim rate is the number of lost-time claims per 100 person-years worked, the disabling injury rate is the number of disabling injury claims per 100 person-years worked and the duration rate is the number of days lost per 100 person-years worked. Fatality rates are expressed as the number of fatalities per million person-years worked.
- Analyses by industry are based on WCB industry classification and aggregation. For more information see http://ds.wcb.ab.ca/WCB.RateManual.WebServer/alphaindex.aspx.
- Analyses by occupation group are based on the National Occupational Classification (NOC). The NOC provides a standard list of occupations across the country. For more information see http://www5.hrsdc.gc.ca/NOC.
- Occupational injuries and diseases listed throughout this report are based on the Z795 Coding of Work Injury or Disease Information produced by the Canadian Standards Association (CSA) for categorizing occupational injury and disease. For information see http://www.shopcsa.ca/onlinestore/GetCatalogItemDetails.asp?mat=2416404.
- Terms, definitions and formulas used throughout this report are described in Appendix A.

INTRODUCTION

Role of the Ministry of Employment and Immigration

The Ministry of Employment and Immigration includes the reporting entity of the Department of Employment and Immigration (E&I). E&I develops and delivers policies, programs and services to foster labour force development; ensure fair, safe and healthy workplaces; and help those in need. The Department also provides leadership for immigration and interprovincial labour mobility policy for the Government of Alberta, and coordinates resources to support the settlement and integration of new Albertans.

Occupational Injuries and Diseases in Alberta – Manufacturing, Processing and Packaging sector 2005 to 2009

E&I prepares this annual report to provide analysis of workplace health and safety to meet the demand from industry and safety associations, labour organizations, employers and workers for incorporating this information into their strategic plans for enhancing workplace health and safety. This includes:

- descriptions of programs and initiatives undertaken in pursuit of its workplace health and safety mission and goals;
- analysis of provincial occupational injury and disease information;
- estimations of the risk of injury or disease at the provincial, industry sector and sub-sector level as well as general descriptions about the incidents and workers.

The *Occupational Injuries and Diseases in Alberta* publications present analysis of aggregate injury claim data to allow for the tracking of workplace health and safety performance over time. This is important for evaluating past and present performance, and in providing strategic information for the direction of workplace health and safety policy. The analysis contained in this report provides a comprehensive picture of workplace injuries in the province, allowing for a prevention focus to be made based on injury probabilities, rather than possibilities.

Healthy and Productive Workplaces

E&I promotes safe, healthy and productive workplaces, as well as fair, equitable and stable labour relations to ensure a fair, safe and healthy work environment for Alberta's workers. Work is central to people's lives, and to the stability of families and societies. People want work that provides them with an acceptable standard of living. It is important that workers enter an environment where their health and safety are protected, where they are treated with respect and they are compensated fairly for the job they are doing. This results in an attractive workplace that furthers the position of Alberta employers to be competitive in the

global economy (see Note 1.1). Alongside the human cost of occupational injuries and diseases and the impact on families and society, the economic costs are numerous.

Note 1.1
Research by the International Institute for Management Development and the World Economic Forum suggests that the safest-working countries also have the best competitiveness ratings
(ILO, XVIIth World Congress on Safety and Health at Work, Introductory Report: Decent Work-Safe Work, September 2005).

Claim costs for occupational injury and disease by WCB are projected to total $700 million in 2010.[1] These costs are ultimately paid by employers through premium payments, and impact the costs of running a business as well as the final cost of delivering products and services. Further costs associated with occupational injuries and diseases include the material damage to equipment and premises, the additional cost of hiring staff to cover for injured workers, and the lost productivity resulting from the absence. Additional impacts of poor health and safety for employers include higher absenteeism and lower morale of employees, loss of skilled and experienced employees, loss of the company's investment in training, and difficulty recruiting high-quality employees due to the loss of image (particularly in the case of subcontractors to larger companies) all leading to losses in productivity and underutilization of production (see Note 1.2).

Other costs borne by the economy and society due in part to work-related injuries and diseases include early retirements, unemployment and poorer households. The International Labour Organization (ILO) estimates that in high-income countries, around 40% of all retirements (before statutory age) are caused by disability. This is equivalent to around 14% of the lifetime working capacity of the employed labour force.[2] Occupational injuries and diseases also affect unemployment and household income levels. Workers with an impairment of capacity can reduce their re-employability and impact household income. Workplace injuries and diseases typically reduce the overall earnings of households and in certain cases, family members have to give up jobs in order to care for an injured worker.

Note 1.2
The International Labour Organization (ILO) estimates that approximately 4% of Gross Domestic Product is lost due to occupational injuries and diseases (*ILO, World Day for Safety and Health at Work 2009 –Facts on safety and health at work issues, April 2009).*

[1] See the Workers Compensation Board Alberta 2010 Premium Rate Manual https://www.wcb.ab.ca/pdfs/employers/10_premium_rate_manual.pdf
[2] See the International Labour Organization report: Safety in numbers – pointers for a global safety culture at work http://www.ilo.org/public/english/region/eurpro/budapest/download/safety_in_numbers_engl.pdf

PROVINCIAL SUMMARY

The positive trend continues: there were fewer injuries reported and the lost-time claim rate declined in 2009.

In recent years, improvements were made to the analysis of WCB claim information allowing for modified work claims to be analyzed alongside lost-time claims. Using modified work claim data in addition to lost-time claim data ensures a more comprehensive picture of workplace injuries, and allows for greater insight into incident prevention.

A lost-time claim is a claim submitted to the WCB for an occupational injury or disease that causes a worker to have time away from work beyond the day of injury. Included are claims receiving reimbursement of full or partial lost wages due to occupational illness or injury, or payment for permanent loss of function (for example, hearing loss claims).

Note 2.1

- **The lost-time claim rate represents the probability or risk of an injury or disease to a worker requiring time away from work, during a period of one year of work.**
- **The disabling injury rate represents the probability or risk of a disabling injury.**

A modified work claim is submitted for an occupational injury or disease where workers have their normal work duties altered enabling them to remain working without losing time from work. Included in the figures are claims where injured workers are helped back into the workplace with modified duties after time lost due to injury or disease, and cases where workers were provided modified duties prior to time lost because of an injury or disease.

Modifying an injured worker's duties can be beneficial for both an employer and an employee. For the employer, the financial cost of an absent worker can be high and returning an injured employee to work as soon as it is medically possible is important for properly managing compensation, disability claims and productivity levels. For the employee, returning to work as soon as medically possible is beneficial both physically and psychologically, and is linked to quicker recovery rates and higher self-esteem. Long absences from the workplace are also linked to decreases in labour market attachment.

The number of disabling injury claims reflects both the lost-time and modified work concepts and produces an overall figure where an occupational injury or disease disables a worker causing either time lost from work or for normal work duties to be modified.

In 2009, a total of 26,096 lost-time claims were accepted by WCB. This is a decrease of 16.9% from 2008. The person-years worked estimates decreased by 7.9% to 1,539,738 between 2008 and 2009 (see Table 2.1). Expressed as a lost-time claim rate, the data translates into a rate of 1.69 per 100 person-years worked, a decrease of 9.8% from 2008, as proportionately there were fewer lost-time injury claims. The 2009 rate is the lowest in

the past nineteen years and since 1991, the lost-time claim rate has decreased by 59.1%. Since 2005, the lost-time claim rate has decreased by 29.7%.

Table 2.1
Provincial Figures – Alberta: 2008 and 2009

	2008	2009	% Change
Person-years worked	1,671,916	**1,539,738**	-7.9%
Lost-time claims	31,410	**26,096**	-16.9%
Lost-time claim rate	1.88	**1.69**	**-9.8%**
Modified-work claims	51,725	**34,818**	-32.7%
Lost-time claims involving modified-work	22,443	**13,409**	-40.3%
Disabling injury claims	60,692	**47,505**	-21.7%
Disabling injury rate	3.63	**3.09**	**-15.0%**
Duration rate	41	**40**	-3.2%
Days lost (LTC)	689,523	**614,757**	-10.8%
Transaction claim costs (LTC)	$211,054,921	**$195,089,312**	-7.6%

Data Source: WCB Data, Prepared by Data Development and Evaluation

The total number of modified work claims submitted in 2009 was 34,818, a decrease of 32.7%. There were 13,409 claims involving both lost-time and modified work, a decrease of 40.3% from 2008. There were 47,505 disabling injury claims, a decrease of 21.7% from 2008. Expressed as a rate, the 2009 disabling injury rate was 3.09 per 100 person-years worked, a decrease of 15.0% from the 2008 rate of 3.63.

Estimates of injury and disease severity are calculated using information on the number of days lost from work. Three basic measures of severity are the duration rate, median days lost from work and average days lost from work. The efforts of employers to introduce modified work programs to integrate injured workers back into the workforce also have a positive impact on work days lost. The duration rate of 40 days lost per 100 person-years worked was 3.2% lower than in 2008. The median number of work days lost in 2009 was seven, the same as 2008, and the average days lost increased to 24, from 22 in 2008.

Table 2.2 displays the lost-time claim and disabling injury figures and rates for the province, and also for the major industry sectors in Alberta. The data provides a useful setting for analyzing the health and safety performance of the Manufacturing, Processing and Packaging sector.

The 2009 lost-time claim rate for the Manufacturing, Processing and Packaging sector of 1.65 per 100 person-years worked is higher than the Business, Personal and Professional Services sector, and the Mining and Petroleum Development sector. The disabling injury

rate for the Manufacturing, Processing and Packaging sector of 4.42 per 100 person-years worked is higher than all major industry sectors.

Table 2.2
Lost-Time Claim and Disabling Injury Rates by Major Industry Sector – Alberta: 2008 and 2009

Major Industry Sector	2008		2009	
	Lost-Time Claim Rate	Disabling Injury Rate	Lost-Time Claim Rate	Disabling Injury Rate
Alberta	1.88	3.63	**1.69**	**3.09**
Agriculture and Forestry	2.72	3.65	**2.36**	**3.02**
Business, Personal and Professional Services	1.20	1.79	**1.08**	**1.57**
Construction and Construction Trade Services	1.91	4.65	**1.73**	**3.92**
Mining and Petroleum Development	0.66	2.92	**0.53**	**2.03**
Public Administration, Education and Health Services	2.29	3.00	**2.21**	**2.90**
Transportation, Communication and Utilities	2.69	4.42	**2.44**	**3.98**
Wholesale and Retail	1.99	3.44	**1.85**	**3.17**
Manufacturing, Processing and Packaging	**2.24**	**5.78**	**1.65**	**4.42**

Data Source: WCB Data, Prepared by Data Development and Evaluation

INDUSTRY SECTOR SUMMARY

The 2009 lost-time claim rate for the Manufacturing, Processing and Packaging sector was 1.65 per 100 person-years worked and the disabling injury rate was 4.42.

In 2009, there were 2,771 lost-time claims and 7,413 disabling injury claims in the Manufacturing, Processing and Packaging sector, representing 10.6% of lost-time claims and 15.6% of disabling injury claims in the province. The Manufacturing, Processing and Packaging sector's lost-time claim rate decreased by 26.2% to 1.65 per 100 person-years worked. The disabling injury rate decreased by 23.4% to 4.42 per 100 person-years worked (see Table 3.1). The 2009 lost-time claim rate for all sectors in the province was 1.69 per 100 person-years worked, while the disabling injury rate was 3.09.

The decreases in the lost-time claim and disabling injury rates in 2009 were the result of the number of injury claims decreasing by a greater amount than person-years worked. The number of lost-time claims decreased by 36.4% and the number of disabling injury claims decreased by 34.1%. The person-years worked estimates decreased by 13.9%, meaning that proportionately there were fewer injury claims.

Table 3.1
Manufacturing, Processing and Packaging Sector — Alberta: 2008-2009

	2008	2009	% Change
Person-years worked	194,572	**167,542**	-13.9%
Lost-time claims	4,360	**2,771**	-36.4%
Lost-time claim rate	**2.24**	**1.65**	**-26.2%**
Modified-work claims	10,295	**6,207**	-39.7%
Lost-time claims involving modified work	3,410	**1,565**	-54.1%
Disabling injury claims	11,245	**7,413**	-34.1%
Disabling injury rate	**5.78**	**4.42**	**-23.4%**
Duration rate	40	**36**	-11.0%
Days lost (LTC)	78,626	**60,284**	-23.3%
Transaction claim costs (LTC)	$27,199,652	**$22,255,946**	-18.2%

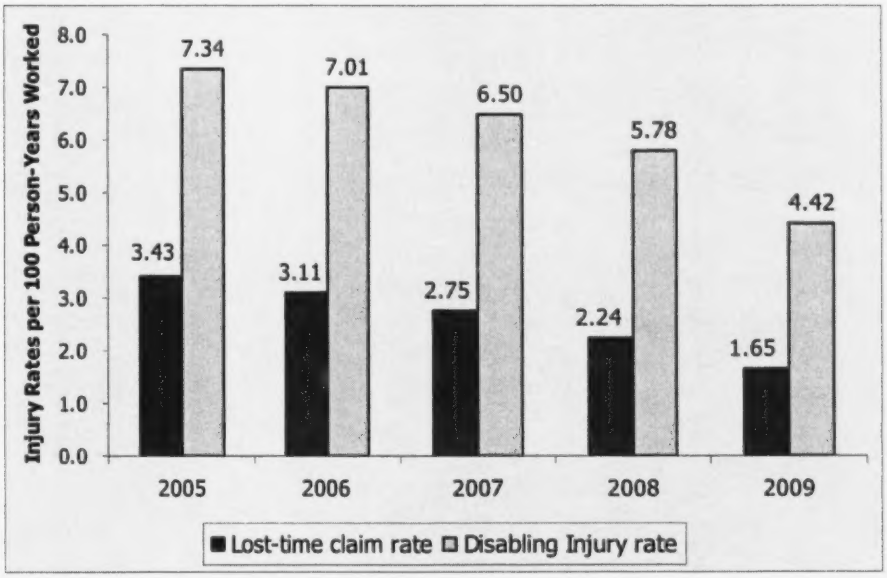
Data Source: WCB Data, Prepared by Data Development and Evaluation

The duration rate is intended to show the severity of the effects of occupational injury and disease as reflected by the number of days off work per 100 person-years worked. The efforts of employers to introduce modified work programs to integrate injured workers back into the workforce also have a positive impact on work days lost. In 2009, the

Manufacturing, Processing and Packaging sector had a duration rate of 36 days lost per 100 person-years worked, a decrease of 11.0% from 2008. The Manufacturing, Processing and Packaging sector had relatively low median and average days lost at six and 22 respectively, lower than the provincial figures of seven and 24 days per claim.

Since 2005, the average lost-time claim rate for all sectors in the province has decreased by 29.7%. Over the same time period, the Manufacturing, Processing and Packaging sector saw a 51.9% decrease from 3.43 per 100 person-years worked in 2005 to 1.65. This was the result of lost-time claims decreasing by 57.1% and person-years worked decreasing by 11.0%. This means that in Manufacturing, Processing and Packaging sector in the last five years, the number of lost-time claims has decreased.

Chart 3.1
Lost-Time Claim and Disabling Injury Rates for the Manufacturing, Processing and Packaging Sector – 2005 - 2009



Data Source: WCB Data, Prepared by Data Development and Evaluation

Rates by Employer Size

In the Manufacturing, Processing and Packaging sector, employers with 10 to 19 person-years worked had the highest lost-time claim rate at 2.59 per 100 person-years worked, followed by employers with 20 to 39 person-years worked at 2.26. Employers with 100 or more person-years worked had the lowest lost-time claim rate at 1.27, although the highest disabling injury rate at 4.88 per 100 person-years worked (see Table 3.2).

For all sectors of the province, employers with 40 to 99 person-years worked and employers with 20 to 39 person-years worked had the highest lost-time claim rates at 1.71 and 1.68 per 100 person-years worked respectively. Employers with 100 or more person-years worked had the highest disabling injury rate at 3.38 per 100 person-years worked.

Table 3.2
Lost-Time Claim and Disabling Injury Rate by Size[3] of Employer — Alberta: 2009

Size of Employer	Number of Accounts	Person-Years Worked	Lost-Time Claims	Disabling Injury Claims	Lost-Time Claim Rate	Disabling Injury Rate
Less than 10 person-years	12,219	19,218	367	465	1.91	2.42
10 to 19 person-years	819	11,640	302	445	2.59	3.82
20 to 39 person-years	597	17,054	386	717	2.26	4.20
40 to 99 person-years	438	27,416	441	1,111	1.61	4.05
100 or more person-years	329	92,213	1,175	4,496	1.27	4.88
Unspecified*	59	N/A*	100	179	N/A*	N/A*

* These are employers with no payroll information or with person-years worked equal to zero.
Data Source: WCB Data, Prepared by Data Development and Evaluation.

Distribution of Injury Claims

In 2009, 91% of employers in the Manufacturing, Processing and Packaging sector had no lost-time claims and 89% of employers had no disabling injury claims, meaning the injuries and diseases happening are the result of incidents occurring at the operations of 11% of employers. For all sectors in the province, 94% of employers submitted no lost-time claims and 93% of employers submitted no disabling injury claims. In 2009, the number of employers with no lost-time or disabling injury claims translates to approximately 43% and 30% of the total person-years worked in the Manufacturing, Processing and Packaging sector respectively (see Table 4.14).

For employers with submitted lost-time claims, 62% submitted one lost-time claim, 33% two to five claims and 6% six or more lost-time claims. For disabling injury claims, 48% submitted one disabling injury claim, 36% submitted two to five claims and 15% submitted six or more disabling injury claims.

Employers that submitted one to five lost-time claims and employers that submitted one to five disabling injury claims accounted for 43% and 34% of the total person-years worked in the Manufacturing, Processing and Packaging sector respectively. Employers that submitted six or more lost-time claims and employers that submitted six or more disabling injury claims accounted for 16% and 37% of the total person-years worked in the Manufacturing, Processing and Packaging sector.

[3] Size is measured in terms of person-years worked. One person-year is equivalent to one full-time worker working for one year.

In 2009, the Gases, Fertilizer and Petrochemical Refining and Manufacturing sub-sector had the lowest lost-time claim rate and the lowest disabling injury rate.

Between 2005 and 2009, the Gases, Fertilizer and Petrochemical Refining and Manufacturing sub-sector had the lowest lost-time claim and disabling injury rates of all Manufacturing, Processing and Packaging sub-sectors. The Gases, Fertilizer and Petrochemical Refining and Manufacturing sub-sector had the lowest lost-time claim and disabling injury rates in 2009 at 0.15 and 0.58 per 100 person-years worked, respectively. The Furniture and Allied products sub-sector had the highest lost-time claim rate in 2009, at 3.01 per 100 person-years worked. The Meat, Hides and Pelt Products sub-sector displayed the largest decrease since 2005, 33.9%.

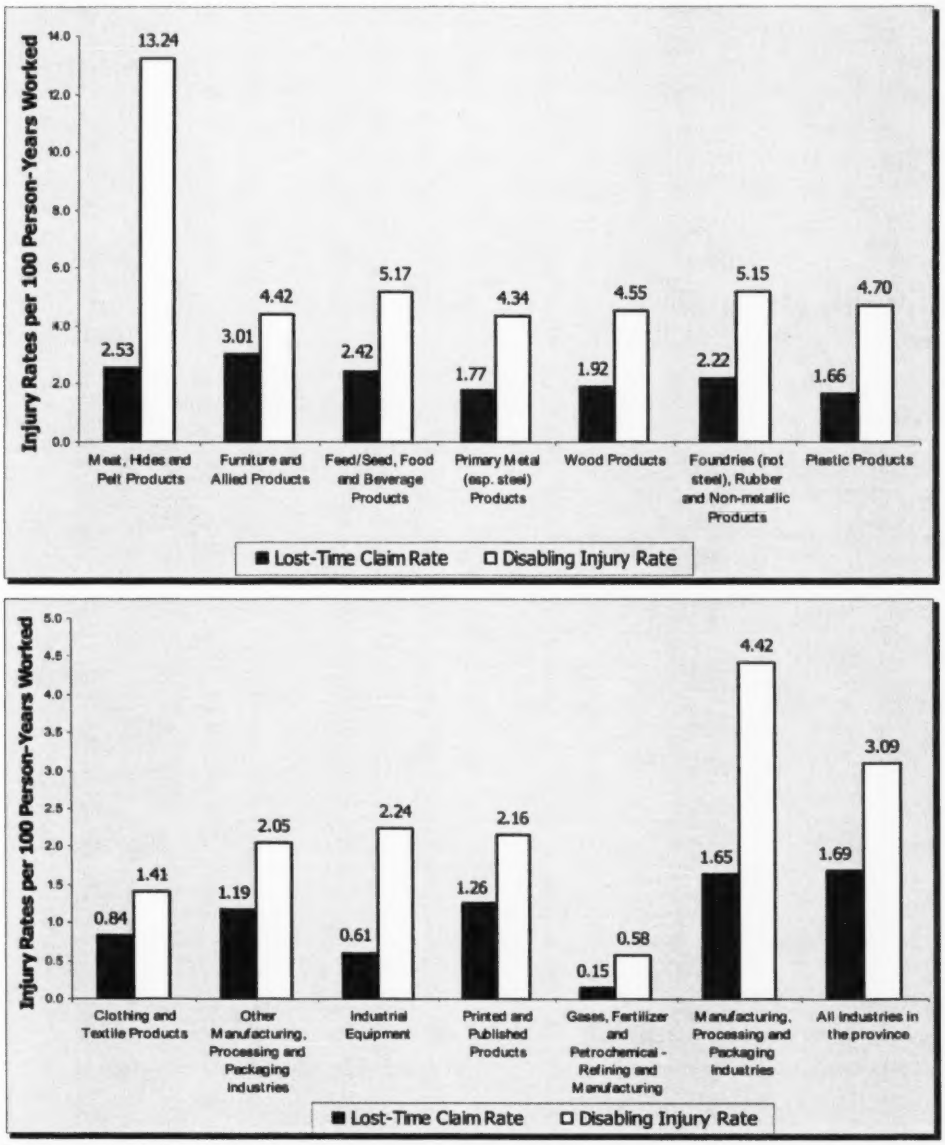
Table 4.1
Lost-Time Claim Rate by Manufacturing, Processing and Packaging Sub-Sector — Alberta: 2005 - 2009

Sub-Sector	2005	2006	2007	2008	2009
Manufacturing, Processing and Packaging	3.43	3.11	2.75	2.24	**1.65**
Meat, Hides and Pelt Products	6.48	6.97	5.20	3.83	**2.53**
Clothing and Textile Products	1.47	1.64	1.11	1.17	**0.84**
Feed/Seed, Food and Beverage Products	4.51	4.09	3.45	3.28	**2.42**
Wood Products	3.61	3.59	3.54	2.57	**1.92**
Furniture and Allied Products	4.46	4.58	4.55	2.41	**3.01**
Printed and Published Products	1.73	1.33	1.44	1.08	**1.26**
Foundries (not steel), Rubber and Non-metallic Products	3.58	3.24	2.66	2.69	**2.22**
Primary Metal (esp. steel) Products	4.03	3.66	2.90	2.56	**1.77**
Industrial Equipment	1.33	1.37	1.17	0.84	**0.61**
Gases, Fertilizer and Petrochemical Refining and Manufacturing	0.42	0.18	0.37	0.19	**0.15**
Plastic Products	3.29	3.04	2.35	2.31	**1.66**
Other Manufacturing, Processing and Packaging Industries	1.67	1.55	1.72	1.50	**1.19**

Data Source: WCB Data, Prepared by Data Development and Evaluation

In 2009, the Meat, Hides and Pelt Products sub-sector had a disabling injury claim rate of 13.24 per 100 person-years worked, the highest of any Manufacturing, Processing and Packaging sub-sectors (see Chart 4.1 and Chart 4.2). Half of the sub-sectors in the Manufacturing, Processing and Packaging sector had lost-time claim and disabling injury rates higher than the average rates for all sectors of 1.69 and 3.09 per 100 person-years worked.

Chart 4.1
Lost-Time Claim and Disabling Injury Rate by Manufacturing, Processing and Packaging Sub-Sector — Alberta: 2009



Data Source: WCB Data, Prepared by Data Development and Evaluation

Meat, Hides and Pelt Products

In 2009, the lost-time claim rate for the Meat, Hides and Pelt Products sub-sector decreased by 33.9% to 2.53 per 100 person-years worked, a result of the number of lost-time claims decreasing by 35.2% and person-years worked decreasing by 1.9%, meaning that proportionately there were fewer lost-time claims. The disabling injury rate decreased by 15.9% in 2009 although it remains the highest in the Manufacturing, Processing and Packaging sector at 13.24 per 100 person-years worked (see Table 4.2).

The duration rate decreased by 30.5% in 2009, to 37 days lost per 100 person-years worked. The average duration rate for all sectors of the province was 40. There were indications of lower injury severity in this sub-sector, with a median days lost of five and an average days lost of 15 days per claim. The average for all sectors in the province was higher at seven and 24, respectively.

Since 2005, the lost-time claim rate for this sub-sector decreased by 33.9%. The average decrease for the Manufacturing, Processing and Packaging sector was 51.9%. The average decrease for all sectors of the province was 29.7%.

Table 4.2
Meat, Hides and Pelt Products — Alberta: 2008-2009

	2008	2009	% Change
Person-years worked	13,279	**13,029**	-1.9%
Lost-time claims	509	**330**	-35.2%
Lost-time claim rate	**3.83**	**2.53**	**-33.9%**
Modified-work claims	2,052	**1,637**	-20.2%
Lost-time claims involving modified work	471	**242**	-48.6%
Disabling injury claims	2,090	**1,725**	-17.5%
Disabling injury rate	**15.74**	**13.24**	**-15.9%**
Duration rate	53	**37**	-30.5%
Days lost (LTC)	7,039	**4,798**	-31.8%
Transaction claim costs (LTC)	$2,639,362	**$2,239,102**	-15.2%

Data Source: WCB Data, Prepared by Data Development and Evaluation

Clothing and Textile Products

In 2009, the lost-time claim rate for the Clothing and Textile Products sub-sector decreased by 28.4% to 0.84 per 100 person-years worked, a result of the number of lost-time claims decreasing by 40.7% and person-years worked decreasing by 17.3%. The disabling injury rate in 2009 was the second lowest of the Manufacturing, Processing and Packaging sub-sectors at 1.41 per 100 person-years worked (see Table 4.3).

The median days lost was seven and average days lost was 35 days per claim in 2009. The average for all sectors in the province was seven and 24, respectively.

Since 2005, the lost-time claim rate for this sub-sector decreased by 43.0%. The average decrease for the Manufacturing, Processing and Packaging sector was 51.9%. The average decrease for all sectors of the province was 29.7%.

Table 4.3
Clothing and Textile Products — Alberta: 2008-2009

	2008	2009	% Change
Person-years worked	2,311	**1,912**	-17.3%
Lost-time claims	27	**16**	-40.7%
Lost-time claim rate	**1.17**	**0.84**	**-28.4%**
Modified-work claims	25	**16**	-36.0%
Lost-time claims involving modified work	16	**5**	-68.8%
Disabling injury claims	36	**27**	-25.0%
Disabling injury rate	**1.56**	**1.41**	**-9.3%**
Duration rate	N/A*	**N/A***	N/A*
Days lost (LTC)	344	**549**	59.6%
Transaction claim costs (LTC)	$93,369	**$148,564**	59.1%

* Duration rates are not calculated when there are less than 30 lost-time claims.
Data Source: WCB Data, Prepared by Data Development and Evaluation

Feed/Seed, Food and Beverage Products

In 2009, the lost-time claim rate for the Feed/Seed, Food and Beverage Products sub-sector decreased by 26.2% to 2.42 per 100 person-years worked, a result of the number of lost-time claims decreasing by 28.7% and person-years worked decreasing by 3.3%, meaning that proportionately, there were fewer lost-time claims. The disabling injury rate decreased by 17.8% in 2009 to 5.17 per 100 person-years worked (see Table 4.4).

The duration rate decreased by 24.0% to 38 days lost per 100 person-years worked in 2009. The average duration rate for all sectors of the province was 40. The median days lost was five and average days lost 16 days per claim. The average for all sectors in the province was higher at seven and 24, respectively.

Since 2005, the lost-time claim rate for this sub-sector decreased by 46.4%. The average decrease for the Manufacturing, Processing and Packaging sector was 51.9%. The average decrease for all sectors of the province was 29.7%.

Table 4.4
Feed/Seed, Food and Beverage Products — Alberta: 2008-2009

	2008	2009	% Change
Person-years worked	16,071	**15,536**	-3.3%
Lost-time claims	527	**376**	-28.7%
Lost-time claim rate	**3.28**	**2.42**	**-26.2%**
Modified-work claims	934	**663**	-29.0%
Lost-time claims involving modified work	451	**236**	-47.7%
Disabling injury claims	1,010	**803**	-20.5%
Disabling injury rate	**6.28**	**5.17**	**-17.8%**
Duration rate	50	**38**	-24.0%
Days lost (LTC)	8,115	**5,960**	-26.6%
Transaction claim costs (LTC)	$2,451,253	**$1,946,052**	-20.6%

Data Source: WCB Data, Prepared by Data Development and Evaluation

Wood Products

The Wood Products sub-sector is the second largest sub-sector in the Manufacturing, Processing and Packaging sector, accounting for 12.2% of the person-years worked. In 2009, the lost-time claim rate decreased by 25.5% to 1.92 per 100 person-years worked, a result of the number of lost-time claims decreasing by 40.3% and person-years worked decreasing by 19.9%, meaning that proportionately there were fewer lost-time claims. The disabling injury rate in 2009 increased by 33.3% to 4.55 per 100 person-years worked (see Table 4.5).

In 2009, the duration rate decreased to 45 days lost per 100 person-years worked. The average duration rate for all sectors of the province was 40. The median days lost was eight and average days lost 23 days per claim. The average for all sectors in the province was higher at seven and 24, respectively.

Since 2005, the lost-time claim rate for this sub-sector decreased by 46.9%. The average decrease for the Manufacturing, Processing and Packaging sector was 51.9%. The average decrease for all sectors of the province was 29.7%.

Table 4.5
Wood Products — Alberta: 2008-2009

	2008	2009	% Change
Person-years worked	25,481	**20,411**	-19.9%
Lost-time claims	655	**391**	-40.3%
Lost-time claim rate	**2.57**	**1.92**	**-25.5%**
Modified-work claims	1,604	**762**	-52.5%
Lost-time claims involving modified work	520	**224**	-56.9%
Disabling injury claims	1,739	**929**	-46.6%
Disabling injury rate	**6.82**	**4.55**	**-33.3%**
Duration rate	52	**45**	-13.1%
Days lost (LTC)	13,148	**9,157**	-30.4%
Transaction claim costs (LTC)	$4,434,048	**$3,659,178**	-17.5%

Data Source: WCB Data, Prepared by Data Development and Evaluation

Furniture and Allied Products

In 2009, the lost-time claim rate for the Furniture and Allied Products sub-sector increased by 25.0% to 3.01 per 100 person-years worked, a result of the number of lost-time claims increasing by 8.2% and person-years worked decreasing by 13.4%. The disabling injury rate in 2009 increased by 0.7% to 4.42 per 100 person-years worked (see Table 4.6).

In 2009, the duration rate increased to 83 days lost per 100 person-years worked. The average duration rate for all sectors of the province was 40. The median days lost was 11 and average days lost 28 days per claim. The average for all sectors in the province was seven and 24, respectively.

Since 2005, the lost-time claim rate for this sub-sector decreased by 32.5%. The average decrease for the Manufacturing, Processing and Packaging sector was 51.9%. The average decrease for all sectors of the province was 29.7%.

Table 4.6
Furniture and Allied Products — Alberta: 2008-2009

	2008	2009	% Change
Person-years worked	3,032	**2,625**	-13.4%
Lost-time claims	73	**79**	8.2%
Lost-time claim rate	**2.41**	**3.01**	**25.0%**
Modified-work claims	115	**75**	-34.8%
Lost-time claims involving modified work	55	**38**	-30.9%
Disabling injury claims	133	**116**	-12.8%
Disabling injury rate	**4.39**	**4.42**	**0.7%**
Duration rate	41	**83**	101.9%
Days lost (LTC)	1,245	**2,177**	74.9%
Transaction claim costs (LTC)	$305,246	**$792,547**	159.6%

Data Source: WCB Data, Prepared by Data Development and Evaluation

Printed and Published Products

In 2009, the lost-time claim rate for the Printed and Published Products sub-sector increased by 16.5% to 1.26 per 100 person-years worked, a result of the number of lost-time claims decreasing by 2.3% and person-years worked decreasing by 16.2%. Despite an increase in the lost-time claim rate in this sub-sector, the number of lost-time claims has decreased. The disabling injury rate increased in 2009 by 6.6% to 2.16 per 100 person-years worked and the number of disabling injury claims decreased by 10.6% (see Table 4.7).

The duration rate increased to 29 days lost per 100 person-years worked in 2009. The median days lost was seven and average days lost 23 days per claim. The average for all sectors in the province was seven and 24, respectively.

Since 2005, the lost-time claim rate for this sub-sector decreased by 27.3%. The average decrease for the Manufacturing, Processing and Packaging sector was 51.9%. The average decrease for all sectors of the province was 29.7%.

Table 4.7
Printed and Published Products — Alberta: 2008-2009

	2008	2009	% Change
Person-years worked	12,069	**10,118**	-16.2%
Lost-time claims	130	**127**	-2.3%
Lost-time claim rate	**1.08**	**1.26**	**16.5%**
Modified-work claims	204	**152**	-25.5%
Lost-time claims involving modified work	89	**60**	-32.6%
Disabling injury claims	245	**219**	-10.6%
Disabling injury rate	**2.03**	**2.16**	**6.6%**
Duration rate	21	**29**	40.3%
Days lost (LTC)	2,497	**2,938**	17.7%
Transaction claim costs (LTC)	$801,609	**$725,514**	-9.5%

Data Source: WCB Data, Prepared by Data Development and Evaluation

Foundries (not Steel), Rubber and Non-metallic Products

In 2009, the lost-time claim rate for the Foundries, Rubber and Non-metallic Products sub-sector decreased by 17.5% to 2.22 per 100 person-years worked, a result of the number of lost-time claims decreasing by 36.8% and person-years worked decreasing by 23.3%. The disabling injury rate in 2009 decreased by 14.0% to 5.15 per 100 person-years worked (see Table 4.8).

The duration rate decreased by 23.2% in 2009 to 57 days lost per 100 person-years worked. The average duration rate for all sectors of the province was 40. The median days lost was seven and average days lost 26 days per claim. The average for all sectors in the province was seven and 24, respectively.

Since 2005, the lost-time claim rate for this sub-sector decreased by 38.1%. The average decrease for the Manufacturing, Processing and Packaging sector was 51.9%. The average decrease for all sectors of the province was 29.7%.

Table 4.8
Foundries (not Steel), Rubber and Non-Metallic products – Alberta: 2008-2009

	2008	2009	% Change
Person-years worked	9,411	**7,217**	-23.3%
Lost-time claims	253	**160**	-36.8%
Lost-time claim rate	**2.69**	**2.22**	**-17.5%**
Modified-work claims	484	**309**	-36.2%
Lost-time claims involving modified work	173	**97**	-43.9%
Disabling injury claims	564	**372**	-34.0%
Disabling injury rate	**5.99**	**5.15**	**-14.0%**
Duration rate	74	**57**	-23.2%
Days lost (LTC)	6,945	**4,092**	-41.1%
Transaction claim costs (LTC)	$2,244,763	**$1,481,229**	-34.0%

Data Source: WCB Data, Prepared by Data Development and Evaluation

Primary Metal (esp. Steel) Products

The Primary Metal Products sub-sector is the largest of the Manufacturing, Processing and Packaging sub-sectors accounting for 34.9% of the total person-years worked. In 2009, the lost-time claim rate decreased by 30.7% to 1.77 per 100 person-years worked, a result of the number of lost-time claims decreasing by 41.5% and person-years worked decreasing by 15.7%. The disabling injury rate in 2009 decreased by 31.6% to 4.34 per 100 person-years worked (see Table 4.9).

The duration rate decreased in 2009 by 6.3% to 42 days lost per 100 person-years worked. The average duration rate for all sectors of the province was 40. The median days lost was seven and average days lost was 24 days per claim. The average for all sectors in the province was seven and 24, respectively.

Since 2005, the lost-time claim rate for this sub-sector decreased by 56.0%. The average decrease for the Manufacturing, Processing and Packaging sector was 51.9%. The average decrease for all sectors of the province was 29.7%.

Table 4.9
Primary Metal (esp. Steel) Products — Alberta: 2008-2009

	2008	2009	% Change
Person-years worked	69,267	**58,409**	-15.7%
Lost-time claims	1,770	**1,035**	-41.5%
Lost-time claim rate	**2.56**	**1.77**	**-30.7%**
Modified-work claims	3,959	**2,012**	-49.2%
Lost-time claims involving modified work	1,336	**512**	-61.7%
Disabling injury claims	4,393	**2,535**	-42.3%
Disabling injury rate	**6.34**	**4.34**	**-31.6%**
Duration rate	45	**42**	-6.3%
Days lost (LTC)	30,987	**24,475**	-21.0%
Transaction claim costs (LTC)	$11,286,459	**$8,791,787**	-22.1%

Data Source: WCB Data, Prepared by Data Development and Evaluation

Industrial Equipment

In 2009, the lost-time claim rate for the Industrial Equipment sub-sector decreased by 27.6% to 0.61 per 100 person-years worked, a result of the number of lost-time claims decreasing by 34.3% and person-years worked decreasing by 9.3%, meaning that proportionately there were fewer lost-time claims. The disabling injury rate in 2009 decreased by 26.2% to 2.24 per 100 person-years worked (see Table 4.10).

The duration rate remained 14 days lost per 100 person-years. The average duration rate for all sectors of the province was 40. The median days lost was five and the average days lost 23 days per claim. The average for all sectors in the province was higher at seven and 24, respectively.

Since 2005, the lost-time claim rate for this sub-sector decreased by 54.3%. The average decrease for the Manufacturing, Processing and Packaging sector was 51.9%. The average decrease for all sectors of the province was 29.7%.

Table 4.10
Industrial Equipment — Alberta: 2008-2009

	2008	2009	% Change
Person-years worked	11,782	**10,690**	-9.3%
Lost-time claims	99	**65**	-34.3%
Lost-time claim rate	**0.84**	**0.61**	**-27.6%**
Modified-work claims	331	**214**	-35.3%
Lost-time claims involving modified work	73	**40**	-45.2%
Disabling injury claims	357	**239**	-33.1%
Disabling injury rate	**3.03**	**2.24**	**-26.2%**
Duration rate	14	**14**	0.0%
Days lost (LTC)	1,636	**1,508**	-7.8%
Transaction claim costs (LTC)	$888,903	**$589,216**	-33.7%

Data Source: WCB Data, Prepared by Data Development and Evaluation

Gases, Fertilizer and Petrochemical – Refining and Manufacturing

In 2009, the lost-time claim rate for the Gases, Fertilizer and Petrochemical – Refining and Manufacturing sub-sector decreased from 0.19 in 2008 to 0.15 per 100 person-years worked. This was the result of the number of lost-time claims decreasing by 24.1% and person-years worked decreasing by 3.4%. The disabling injury rate in 2009 decreased from 0.66 to 0.58 per 100 person-years worked (see Table 4.11). The lost-time claim rate and the disabling injury rate for the Gases, Fertilizer and Petrochemical – Refining and Manufacturing sub-sector remain the lowest of the Manufacturing, Processing and Packaging sub-sectors.

The median days lost was eight and average days lost 26 days per claim. The average for all sectors in the province was seven and 24, respectively.

Since 2005, the lost-time claim rate for this sub-sector decreased by 64.7%. The average decrease for the Manufacturing, Processing and Packaging sector was 51.9%. The average decrease for all sectors of the province was 29.7%.

Table 4.11
Gases, Fertilizer and Petrochemical – Refining and Manufacturing — Alberta: 2008-2009

	2008	2009	% Change
Person-years worked	15,275	**14,759**	-3.4%
Lost-time claims	29	**22**	-24.1%
Lost-time claim rate	**0.19**	**0.15**	**-21.5%**
Modified-work claims	92	**76**	-17.4%
Lost-time claims involving modified work	20	**12**	-40.0%
Disabling injury claims	101	**86**	-14.9%
Disabling injury rate	**0.66**	**0.58**	**-11.9%**
Duration rate	N/A*	**N/A***	N/A*
Days lost (LTC)	508	**575**	13.2%
Transaction claim costs (LTC)	$253,979	**$686,343**	170.2%

* Duration rates are not calculated when there are less than 30 lost-time claims.
Data Source: WCB Data, Prepared by Data Development and Evaluation

Plastic Products

In 2009, the lost-time claim rate for the Plastic Products industry decreased by 28.0% to 1.66 per 100 person-years worked, the result of the number of the lost-time claims decreasing by 44.6% and person-years worked decreasing by 23.1%. The disabling injury rate in 2009 decreased by 23.4% to 4.70 per 100 person-years worked (see Table 4.12).

The duration rate decreased by 38.6% to 27 days lost per 100 person-years worked in 2009. The average duration rate for all sectors of the province was 40. The median days lost was four and average days lost 16 days per claim. The average for all sectors in the province was higher at seven and 24, respectively.

Since 2005, the lost-time claim rate for this industry decreased by 49.4%. The average decrease for the Manufacturing, Processing and Packaging sector was 51.9%. The average decrease for all sectors of the province was 29.7%.

Table 4.12
Plastic Products — Alberta: 2008-2009

	2008	2009	% Change
Person-years worked	4,847	**3,726**	-23.1%
Lost-time claims	112	**62**	-44.6%
Lost-time claim rate	**2.31**	**1.66**	**-28.0%**
Modified-work claims	277	**152**	-45.1%
Lost-time claims involving modified work	92	**39**	-57.6%
Disabling injury claims	297	**175**	-41.1%
Disabling injury rate	**6.13**	**4.70**	**-23.4%**
Duration rate	44	**27**	-38.6%
Days lost (LTC)	2,120	**1,001**	-52.8%
Transaction claim costs (LTC)	$769,579	**$317,332**	-58.8%

Data Source: WCB Data, Prepared by Data Development and Evaluation

Distribution of injury claims

Table 4.13 presents figures for the proportion of employers without lost-time claims and the proportion of employers without disabling injury claims in 2009, by sub-sector. Table 4.14 displays the respective person-years worked for those employers. Table 4.15 displays figures for the number of claims submitted by employers.

Four industry sub-sectors had higher proportions of employers with no lost-time claims and higher proportions of employers with no disabling injury claims than the average for the Manufacturing, Processing and Packaging sector, indicating a more highly concentrated occurrence of injury in those sub-sectors. These were the Clothing and Textile Products sub-sector, the Furniture and Allied Products sub-sector and the Primary Metal Products sub-sector and the Other Manufacturing, Processing and Packaging Industries sub-sector (see Table 4.13).

In 2009, the number of employers with no lost-time claims translates to 90%, 70%, 45% and 69% of the total person-years worked in these four sub-sectors respectively (see Table 4.14).

Table 4.13
Proportion of Employers with no Lost-Time or Disabling Injury Claims, by Manufacturing, Processing and Packaging Sub-Sector – Alberta: 2009

Proportion of Employers by Sub-Sector	With no Lost-Time Claims	With no Disabling Injury Claims
Manufacturing, Processing and Packaging	**91%**	**89%**
Meat, Hides and Pelt Products	67%	61%
Clothing and Textile Products	98%	97%
Feed/Seed, Food and Beverage Products	82%	78%
Wood Products	82%	79%
Furniture and Allied Products	96%	95%
Printed and Published Products	89%	88%
Foundries (not steel), Rubber and Non-metallic Products	77%	71%
Primary Metal (especially steel) Products	93%	91%
Industrial Equipment	92%	87%
Gases, Fertilizer and Petrochemical - Refining and Manufacturing	89%	79%
Plastic Products	77%	72%
Other Manufacturing, Processing and Packaging Industries	93%	91%

Data Source: WCB Data, Prepared by Data Development and Evaluation

Table 4.14
Proportion of Person-years worked accounted for by Employers with no Lost-Time or Disabling Injury Claims, by Manufacturing, Processing and Packaging Sub-Sector – Alberta: 2009

Proportion of person-years accounted for by employers	With no Lost-Time Claims	With no Disabling Injury Claims
Manufacturing, Processing and Packaging	**43%**	**30%**
Meat, Hides and Pelt Products	8%	5%
Clothing and Textile Products	90%	81%
Feed/Seed, Food and Beverage Products	32%	18%
Wood Products	25%	16%
Furniture and Allied Products	70%	64%
Printed and Published Products	41%	40%
Foundries (not steel), Rubber and Non-metallic Products	35%	21%
Primary Metal (especially steel) Products	45%	30%
Industrial Equipment	57%	39%
Gases, Fertilizer and Petrochemical - Refining and Manufacturing	71%	49%
Plastic Products	37%	23%
Other Manufacturing, Processing and Packaging Industries	69%	64%

Data Source: WCB Data, Prepared by Data Development and Evaluation

Table 4.15
Proportion of Employers with Lost-Time or Disabling Injury Claims, by Manufacturing, Processing and Packaging Sub-Sector – Alberta: 2009

Sub-Sector	1 Lost-Time Claim	2 to 5 Lost-Time Claims	6 to 20 Lost-Time Claims	Over 20 Lost-Time Claims
Meat, Hides and Pelt Products	29%	45%	18%	8%
Clothing and Textile Products	70%	30%	0%	0%
Feed/Seed, Food and Beverage Products	54%	37%	7%	3%
Wood Products	59%	36%	5%	0%
Furniture and Allied Products	87%	9%	4%	0%
Printed and Published Products	56%	36%	8%	0%
Foundries (not steel), Rubber and Non-metallic Products	58%	36%	6%	0%
Primary Metal (especially steel) Products	64%	33%	3%	0%
Industrial Equipment	74%	18%	8%	0%
Gases, Fertilizer and Petrochemical - Refining and Manufacturing	73%	27%	0%	0%
Plastic Products	57%	43%	0%	0%
Other Manufacturing, Processing and Packaging Industries	71%	28%	1%	0%

Data Source: WCB Data, Prepared by Data Development and Evaluation

For employers who did submit lost-time claims, the Meat, Hides and Pelt Products sub-sector had 26% of employers submitting over six lost-time claims. For disabling injury claims, the Meat, Hides and Pelt Products sub-sector had 43% of employers submitting over six disabling injury claims.

Table 4.15 (Continued)
Proportion of Employers with Lost-Time or Disabling Injury Claims, by Manufacturing, Processing and Packaging Sub-Sector – Alberta: 2009

Sub-Sector	1 Disabling Injury Claim	2 to 5 Disabling Injury Claims	6 to 20 Disabling Injury Claims	Over 20 Disabling Injury Claims
Meat, Hides and Pelt Products	31%	26%	21%	22%
Clothing and Textile Products	69%	23%	8%	0%
Feed/Seed, Food and Beverage Products	37%	40%	16%	7%
Wood Products	42%	40%	15%	3%
Furniture and Allied Products	87%	6%	6%	0%
Printed and Published Products	45%	42%	9%	4%
Foundries (not steel), Rubber and Non-metallic Products	39%	44%	13%	3%
Primary Metal (especially steel) Products	50%	37%	11%	2%
Industrial Equipment	58%	30%	5%	7%
Gases, Fertilizer and Petrochemical - Refining and Manufacturing	46%	36%	18%	0%
Plastic Products	37%	42%	19%	2%
Other Manufacturing, Processing and Packaging Industries	61%	32%	7%	0%

Data Source: WCB Data, Prepared by Data Development and Evaluation

DEMOGRAPHICS OF INJURED WORKERS

Injured Worker Characteristics

In 2009, the Machinists, Metal Forming, Shaping and Erecting Occupations group had the highest proportion of lost-time claims in the Manufacturing, Processing and Packaging sector at 19.5%. In this sector, the Labourers in Processing, Manufacturing and Utilities group had the highest proportion of disabling injuries at 18.4%. The Trades Helpers, Construction, and Transportation Labourers and Related Occupations group had the largest difference between their proportion of lost-time claims and proportion of those in employment at 14.0% and 1.7%, indicating these workers were more likely to be injured than other occupational groups in this sector. In contrast, Assemblers in Manufacturing accounted for 2.2% of lost-time claims, 1.9% of disabling injury claims, and 6.4% of those in employment (see Table 5.1).

Table 5.1
Lost-Time, Disabling Injury Claims and Employment by Selected Occupation Group — Alberta: 2009

Occupation Group	Lost-time Claims	Disabling Injury Claims	Employment
Machinists, Metal Forming, Shaping and Erecting Occupations	19.5%	16.3%	7.5%
Labourers in Processing, Manufacturing and Utilities	15.4%	18.4%	8.9%
Trades Helpers, Construction, and Transportation Labourers and Related Occupations	14.0%	13.8%	1.7%
Machine Operators in Manufacturing	10.2%	15.9%	15.9%
Clerical Occupations	5.6%	4.8%	7.4%
Construction Trades	7.2%	5.2%	3.0%
Assemblers in Manufacturing	2.2%	1.9%	6.4%
Transportation Equipment Operators and Related Workers, Excluding Labourers	5.6%	4.0%	1.9%
Sales & Service Occupations N.E.C.	4.6%	4.1%	1.6%

Data Source: WCB Data, Prepared by Data Development and Evaluation; Statistics Canada, Labour Force Survey (Microdata Files)

In 2009, workers aged 25 to 54 years accounted for 73.0% of lost-time claims, 75.6% of disabling injury claims, and 74.6% of employment[4]. Young workers aged between 15 and 24 accounted for 13.3% of lost-time claims and 14.5% of disabling injury claims, while representing only 11.1% of those in employment, indicating that young workers are more likely to be injured on the job in the Manufacturing, Processing and Packaging sector[5] (see Table 5.2).

Table 5.2
Lost-Time and Disabling Injury Claims by Age — Alberta: 2008-2009

Age	2008				2009			
	Lost-Time Claims	%	Disabling Injury Claims	%	Lost-Time Claims	%	Disabling Injury Claims	%
15-19 Years	207	4.7%	562	5.0%	91	3.3%	239	3.2%
20-24 Years	513	11.8%	1,562	13.9%	278	10.0%	835	11.3%
25-34 Years	1,043	23.9%	3,146	28.0%	665	24.0%	2,154	29.1%
35-44 Years	1,127	25.8%	2,793	24.8%	670	24.2%	1,890	25.5%
45-54 Years	1,006	23.1%	2,267	20.2%	688	24.8%	1,563	21.1%
55-64 Years	402	9.2%	833	7.4%	314	11.3%	638	8.6%
65+ Years	62	1.4%	81	0.7%	65	2.3%	93	1.3%
Unspecified	0	N/A	1	N/A	0	N/A	1	N/A
Total	**4,360**	**100.0%**	**11,245**	**100.0%**	**2,771**	**100.0%**	**7,413**	**100.0%**

Data Source: WCB Data, Prepared by Data Development and Evaluation

In the Manufacturing, Processing and Packaging sector, the majority of claims were from men. In 2009, 84.2% of lost-time and 85.2% of disabling injury claims involved men, while they comprised 77.1% of those employed (see Table 5.3)[6].

Table 5.3
Lost-Time and Disabling Injury Claims by Gender — Alberta: 2008-2009

Gender	2008				2009			
	Lost-Time Claims	%	Disabling Injury Claims	%	Lost-Time Claims	%	Disabling Injury Claims	%
Women	764	17.5%	1,842	16.5%	439	15.8%	1,097	14.8%
Men	3,596	82.5%	9,345	83.5%	2,332	84.2%	6,291	85.2%
Unspecified	0	N/A	58	N/A	0	N/A	25	N/A
Total	**4,360**	**100.0%**	**11,245**	**100.0%**	**2,771**	**100.0%**	**7,413**	**100.0%**

Data Source: WCB Data, Prepared by Data Development and Evaluation

[4] Statistics Canada's Labour Force Survey (2009 Historical Review).
[5] See the *Occupational Injuries and Diseases in Alberta Young Workers* publication.
[6] Statistics Canada's Labour Force Survey (2009 Historical Review).

INJURY AND DISEASE ANALYSIS

Overexertion was the most common cause for lost-time claims in the Manufacturing, Processing and Packaging sector. Sprains, strains and tears continued to be the leading nature of injury with the trunk being the most commonly injured body part.

Nature of Injury or Disease

The nature of injury is used to identify the physical characteristics of the injury or disease. In 2009, 91.4% of lost-time and 93.9% of disabling injury claims were caused by traumatic injuries and disorders. The two most common traumatic injuries and disorders were sprains, strains and tears, and surface wounds and bruises (see Table 6.1).

Note 6.1
Throughout this section, the classifications used are based on the Canadian Standards Association (CSA) standards for categorizing occupational injury and disease information.

Compared to the rest of the sectors, the Manufacturing, Processing and Packaging sector had higher proportions of lost-time and disabling injury claims in most nature of injury categories[7]. For lost-time claims the nature of injury category open wounds was 1.6 times higher than the average for all sectors. The number of disabling injury claims for this category was 2.1 times higher. Systemic diseases and disorders, and surface wounds and bruises displayed high lost-time claim proportions, at 1.5 and 1.2 times the average for all sectors, and high disabling injury claim proportions, 1.9 and 1.7 times the average for all sectors in the province.

Note 6.2
The CSA standard is designed so that Nature of Injury and Part of Body categories are directly linked when classifying injuries. This is also true for the relationship between the Source of Injury and Type of Event categories.

[7] The proportion or number of times higher or lower compares the Manufacturing, Processing and Packaging sector's claim rate and proportion of injuries by each injury type, against the average claim rate and injury proportion for all sectors in the province. A value equal to 1 indicates an equal probability or likelihood to the average. A value higher than 1 indicates an increased likelihood of this type of injury occurring, and a value less than one indicates a lower likelihood. See Appendix A for calculation details.

Table 6.1
Nature of Injury or Disease — Alberta: 2009

Nature of Injury	Lost-Time Claims	%	Disabling Injury claims	%
Traumatic Injuries and Disorders	**2,533**	**91.4%**	**6,964**	**93.9%**
Sprains, Strains and Tears	1,074	38.8%	2,951	39.8%
Surface Wounds and Bruises	374	13.5%	1,135	15.3%
Open Wounds	357	12.9%	1,084	14.6%
Fractures and Dislocations	294	10.6%	480	6.5%
Burns	65	2.3%	161	2.2%
Other Traumatic Injuries and Disorders	369	13.3%	1,153	15.6%
Systemic Diseases and Disorders	**222**	**8.0%**	**413**	**5.6%**
Infectious and Parasitic Disorders	**4**	**<0.1%**	**4**	**<0.1%**
Symptoms, Signs and Ill-Defined Conditions	**3**	**0.1%**	**12**	**0.2%**
Other Diseases, Conditions and Disorders	**8**	**0.3%**	**9**	**0.1%**
Nature of Injury - Unknown	**1**	**0.0%**	**11**	**0.1%**
Total	**2,771**	**100.0%**	**7,413**	**100.0%**

Data Source: WCB Data, Prepared by Data Development and Evaluation

Part of Body Injured

In 2009, the back (including spine and spinal cord) was the most commonly injured body part, accounting for 21.9% of lost-time claims in the Manufacturing, Processing and Packaging sector and 18.7% of disabling injury claims. This was followed by injuries to the fingers and fingernails, accounting for 12.4% and 16.4% of lost-time claims and disabling injury claims, and other trunk, 11.8% and 13.7% respectively (see Table 6.2).

Compared to the average for all sectors in the province, the Manufacturing, Processing and Packaging sector had higher proportions[8] of lost-time claims in most injury categories. For lost-time claims, the eyes displayed the highest proportion, 2.3 times higher in the Manufacturing, Processing and Packaging sector than the average. Injuries to fingers or fingernails and to the wrists and hands displayed proportions for lost-time claims that were 1.7 and 1.1 times higher than the average for all sectors in the province. For disabling injury claims, these body parts had proportions 2.6 times, 2.3 times and 1.7 times higher than the average respectively.

[8] The proportion or number of times higher or lower compares the Manufacturing, Processing and Packaging sector's claim rate and proportion of injuries by each injury type, against the average claim rate and injury proportion for all sectors in the province. A value equal to 1 indicates an equal probability or likelihood to the average. A value higher than 1 indicates an increased likelihood of this type of injury occurring, and a value less than one indicates a lower likelihood. See Appendix A for calculation details.

Table 6.2
Part of Body Injured — Alberta: 2009

Part of Body Injured	Lost-Time Claims	%	Disabling Injury Claims	%
Trunk	**934**	**33.7%**	**2,398**	**32.3%**
Back, Including Spine, Spinal Cord	606	21.9%	1,383	18.7%
Other Trunk	328	11.8%	1,015	13.7%
Upper Extremities	**804**	**29.0%**	**2,774**	**37.4%**
Finger(s), Fingernail(s)	344	12.4%	1,215	16.4%
Wrist(s) and Hand(s) Except Finger(s)	277	10.0%	947	12.8%
Other Upper Extremities	183	6.6%	612	8.3%
Lower Extremities	**523**	**18.9%**	**1,212**	**16.3%**
Leg(s)	286	10.3%	586	7.9%
Ankle(s) and Foot (Feet) Except Toes	209	7.5%	574	7.7%
Other Lower Extremities	28	1.0%	52	0.7%
Head	**322**	**11.6%**	**598**	**8.1%**
Eye(s)	159	5.7%	332	4.5%
Other Head Parts	163	5.9%	266	3.6%
Multiple Body Parts	**131**	**4.7%**	**315**	**4.2%**
Neck, Including Throat	**37**	**1.3%**	**92**	**1.2%**
Body Systems	**18**	**0.6%**	**20**	**0.3%**
Part of Body - Unknown	**2**	**<0.1%**	**4**	**<0.1%**
Total	**2,771**	**100.0%**	**7,413**	**100.0%**

Data Source: WCB Data, Prepared by Data Development and Evaluation

Source of Injury or Disease

The source of injury or disease describes the object or substance that came into contact with the worker and resulted in an injury or disease. In 2009, persons, plants, animals and minerals accounted for 19.8% of lost-time claims and 24.1% of disabling injury claims. This was followed by parts and materials at 19.7% and 20.3% respectively (see Table 6.3).

Compared to the average for all sectors in the province, the Manufacturing, Processing and Packaging sector had higher proportions[9] of lost-time claims in most injury categories. For injury claims, the injury category hand tools - powered displayed the highest proportion, 2.1 times higher than the average for all sectors for lost-time claims and 2.2 times higher for disabling injury claims. This was followed by parts and materials, 1.9 times higher for lost-time claims and 2.2 times higher for disabling injury claims. Machinery displayed proportions that were 1.7 and 2.1 times higher for lost-time claims and disabling injury claims than the average for all sectors in the province.

[9] The proportion or number of times higher or lower compares Manufacturing, Processing and Packaging sector's claim rate and proportion of injuries by each injury type, against the average claim rate and injury proportion for all sectors in the province. A value equal to 1 indicates an equal probability or likelihood to the average. A value higher than 1 indicates an increased likelihood of this type of injury occurring, and a value less than one indicates a lower likelihood. See Appendix A for calculation details.

Table 6.3
Source of Injury or Disease Alberta: 2009

Source of Injury	Lost-Time Claims	%	Disabling Injury Claims	%
Persons, Plants, Animals and Minerals	**549**	**19.8%**	**1,786**	**24.1%**
Person-Injured or Ill Worker	482	17.4%	1,553	20.9%
Minerals - Metallic or Nonmetallic (except fuel)	9	0.3%	12	0.2%
Person-Other Than Injured or Ill Worker*	9	0.3%	23	0.3%
Other Persons, Plants, Animals & Minerals	49	1.8%	198	2.7%
Parts and Materials	**547**	**19.7%**	**1,505**	**20.3%**
Structures and Surfaces	**418**	**15.1%**	**871**	**11.7%**
Containers**	**231**	**8.3%**	**675**	**9.1%**
Tools, Instruments and Equipment	**259**	**9.3%**	**881**	**11.9%**
Hand Tools - Nonpowered	118	4.3%	481	6.5%
Hand Tools - Powered	48	1.7%	114	1.5%
Other Tools and Equipments	93	3.4%	286	3.9%
Machinery	**240**	**8.7%**	**546**	**7.4%**
Vehicles	**122**	**4.4%**	**259**	**3.5%**
Furniture and Fixtures	**58**	**2.1%**	**141**	**1.9%**
Chemicals and Chemical Products	**43**	**1.6%**	**85**	**1.1%**
Other Sources	**261**	**9.4%**	**531**	**7.2%**
Source of Injury - Unknown	**43**	**1.6%**	**133**	**1.8%**
Total	**2,771**	**100.0%**	**7,413**	**100.0%**

* Person – other than injured or ill worker: classifies workplace injuries or illnesses inflicted by family members as well as non-family relations, including co-workers, former co-workers, and patients.
** Containers: classifies receptacles that are commonly used to hold, store or carry materials (examples: dishes, cups and glasses, luggage, etc.).
Data Source: WCB Data, Prepared by Data Development and Evaluation

Type of Event or Exposure

The type of event or exposure describes the incident or event that occurred at the time of the exposure that directly resulted in the injury or disease. The two most common types of event or exposure comprising over three-quarters of the total lost-time and disabling injury claims in the Manufacturing, Processing and Packaging sector in 2009 were bodily reaction or exertion, and contact with objects and equipment (see Table 6.4). Bodily reaction accounted for 39.8% of the lost-time claims and 43.7% of the disabling injury claims. Contact with objects and equipment accounted for 35.9% and 38.0% respectively.

Lost-time claims caused by rubs or abrasions had the highest proportion[10] at 2.7 times the average for all sectors in the province. For disabling injury claims it was 2.4 times higher in the Manufacturing, Processing and Packaging sector. This was followed by caught in object with proportions 2.2 times higher for lost-time claims and 2.4 times higher for disabling injury claims. Repetitive motion injuries were 1.5 times higher for lost-time claims and 2.9 times higher for disabling injury claims than the average for all sectors of the province.

[10] The proportion or number of times higher or lower compares the Manufacturing, Processing and Packaging sector's claim rate and proportion of injuries by each injury type, against the average claim rate and injury proportion for all sectors in the province. A value equal to 1 indicates an equal probability or likelihood to the average. A value higher than 1 indicates an increased likelihood of this type of injury occurring, and a value less than one indicates a lower likelihood. See Appendix A for calculation details.

Table 6.4
Type of Event or Exposure — Alberta: 2009

Type of Event or Exposure	Lost-Time Claims	%	Disabling Injuries	%
Bodily Reaction or Exertion	**1,102**	**39.8%**	**3,241**	**43.7%**
Overexertion	575	20.8%	1,557	21.0%
Bodily Reaction*	297	10.7%	778	10.5%
Repetitive Motion	151	5.4%	664	9.0%
Other Bodily Reaction/Exertion	79	2.9%	242	3.3%
Contact with Objects or Equipment	**995**	**35.9%**	**2,819**	**38.0%**
Struck by Object	457	16.5%	1,345	18.1%
Caught in Object	239	8.6%	664	9.0%
Struck against Object	133	4.8%	416	5.6%
Rubbed or Abraded	93	3.4%	184	2.5%
Other Contact with Object/Equipment	73	2.6%	210	2.8%
Falls	**411**	**14.8%**	**861**	**11.6%**
Fall on Same Level	257	9.3%	590	8.0%
Fall to Lower Level	129	4.7%	215	2.9%
Other Falls	25	0.9%	56	0.8%
Exposure to Harmful Substances	**166**	**6.0%**	**310**	**4.2%**
Transportation Accidents	**63**	**2.3%**	**107**	**1.4%**
Assaults and Violent Acts	**13**	**0.5%**	**26**	**0.4%**
Assaults and Violent Acts by Person(s)	10	0.4%	18	0.2%
Other Assaults and Violent Acts	3	0.1%	8	0.1%
Fires and Explosions	**11**	**0.4%**	**15**	**0.2%**
Type of Event - Unknown	**10**	**0.4%**	**34**	**0.5%**
Total	**2,771**	**100.0%**	**7,413**	**100.0%**

* Bodily reaction: injuries or illnesses resulting from a single incident of free bodily motion which imposed stress or strain on some part of the body.
Data Source: WCB Data, Prepared by Data Development and Evaluation

Duration of Disability

Duration of disability[11] is intended to reflect the severity of the effects of occupational injury and disease as reflected by the number of days off work. The efforts of employers to introduce modified work programs to integrate injured workers more quickly back into the workforce have a positive impact on workdays lost.

In 2009, lost-time claims with duration of disability between one and ten days accounted for 54.0% of all claims, compared with 53.3% for all sectors in the province. Lost-time claims resulting in 31 days or more lost accounted for 21.4% of all lost-time claims in the Manufacturing, Processing and Packaging sector (see Table 6.5). For all sectors in the province, 21.9% of claimants were unable to work for 31 days or more.

Table 6.5
Duration of Disability — Alberta: 2009

Duration of Disability	% of Manufacturing, Processing and Packaging Sector's Lost-Time Claims	% of Lost-Time Claims in the Province
1-5 Days	41.2%	39.9%
6-10 Days	12.8%	13.4%
11-15 Days	7.1%	7.6%
16-20 Days	4.7%	5.0%
21-30 Days	6.2%	6.7%
31-40 Days	5.0%	4.7%
41-50 Days	3.1%	3.4%
51 Days or More	13.3%	13.8%
Unspecified	6.6%	5.6%

Data Source: WCB Data, Prepared by Data Development and Evaluation

[11] The duration of disability refers to the length of time, in days, for which the worker receives wage compensation from the WCB.

OCCUPATIONAL FATALITIES

In 2009, the WCB accepted 17 fatalities in the Manufacturing, Processing and Packaging industries, accounting for 15.5% of all 110 fatalities in the province.

A WCB accepted occupational fatality is defined as the death of a worker resulting from a work-related incident or exposure which has been accepted by the WCB for compensation. The WCB classifies occupational fatalities into three general types:

Motor Vehicle Incidents

Motor vehicle incidents typically involve non-industrial vehicles operating on public roads in which the fatally injured worker was either the driver or a passenger. This type of occupational fatality also includes cases involving aircraft, train, helicopter and water vehicle crashes. In 2009, two Manufacturing, Processing and Packaging fatalities accepted by WCB were motor vehicle incidents (see Table 7.1).

Workplace Incidents

Workplace incidents consisted of cases in which the worker died at a worksite or as a result of injuries sustained at a worksite. This is the type of fatality that E&I typically investigates. In 2009, three of the Manufacturing, Processing and Packaging fatalities accepted by WCB were workplace incidents (see Table 7.1).

Latent Workplace and Motor Vehicle Fatalities

Latent fatalities consist of workers who were involved in a workplace incident or exposure, or a motor vehicle incident that did not become a fatality until a much later date, often years later. These incidents were classified as occupational diseases. From 2002, these incidents were separated out and included within either motor vehicle or workplace incident categories in accordance to their original injury.

Usually, other contributing factors cause a latent fatality, although these contributing factors are the result of the initial injury or exposure. A motor vehicle incident, where a worker received leg injuries requiring surgery is a good example of this. Complications during the surgery result in a blood clot causing a fatal stroke. Thus, the injury is classified latent because the original injury caused the requirement for surgery. In 2009, there was one latent workplace fatality in the Manufacturing, Processing and Packaging industries.

Occupational Disease

Occupational disease fatalities consist mostly of recognized occupational disease, that is, disease known to be primarily or exclusively work-related such as asbestosis and coal workers' pneumoconiosis. This category also includes heart attacks suffered on the job. Occupational diseases are frequently diagnosed several years after the initial or crucial

exposure to the toxic substance, and in such cases, it is difficult to determine when the fatal exposure occurred. *The occupational disease category, therefore, should not be interpreted to reflect present worksite hazardous conditions or exposures.*

Each year the WCB accepts some occupational fatality claims for compensation. Occupational fatality claims that were accepted in a particular year may include fatalities from prior years. In 2009, 12 of the fatalities accepted by the WCB in the Manufacturing, Processing and Packaging industries were occupational disease incidents (see Table 7.1).

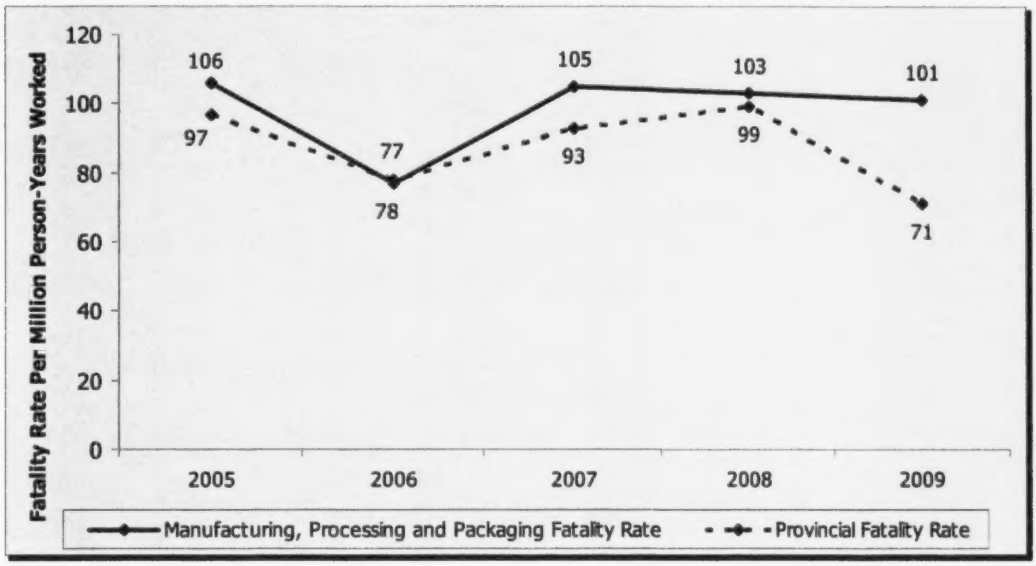
Table 7.1
Types of Occupational Fatalities Accepted by the WCB – Alberta: 2005 - 2009

Year	Motor Vehicle Incident		Workplace Incident		Occupational Disease		Total
	Number of Fatalities	%	Number of Fatalities	%	Number of Fatalities	%	Number of Fatalities
2005	3	15.0%	8	40.0%	9	50.0%	20
2006	2	12.5%	5	31.3%	9	56.3%	16
2007	3	14.3%	4	19.0%	14	66.7%	21
2008	4	20.0%	2	10.0%	14	70.0%	20
2009	**2**	**11.8%**	**3**	**17.6%**	**12**	**70.6%**	**17**
Total	14	14.9%	22	23.4%	58	61.7%	94

Data Source: WCB Data, Prepared by Data Development and Evaluation

The fatality rate is calculated by dividing the number of accepted fatalities in the year by the number of person-years worked in that year. The result is expressed as "per million person-years worked." The 2009 fatality rate decreased by 1.9% from 103 per million person-years worked in 2008 to 101 per million person-years worked in 2009 (see Chart 7.1).

Chart 7.1
Fatality Rate[12] in the Manufacturing, Processing and Packaging Sector: 2005-2009



Data Source: WCB Data, Prepared by Data Development and Evaluation

Between 2005 and 2009, the WCB accepted 94 fatalities in the Manufacturing, Processing and Packaging industries. The Primary Metal (especially Steel) Products sub-sector had the most with 38 fatalities, accounting for 40.4% of all the fatalities in the Manufacturing, Processing and Packaging sector (see Table 7.2).

[12] Estimates are based upon information provided by the WCB. Fatalities occurring under Government of Canada jurisdiction are excluded from the calculation of the fatality rates.

Table 7.2
Manufacturing, Processing and Packaging Occupational Fatalities Accepted by the WCB by Sub-Sector – Alberta: 2005 - 2009

Sub-Sector	2005	2006	2007	2008	2009	Number of Fatalities	%
Feed/Seed, Food and Beverage Products	1	1	2	2	1	7	7.4%
Foundries (not steel), Rubber and Non-metallic Products	2	1	3	0	1	7	7.4%
Furniture and Allied Products	1	0	0	1	1	3	3.2%
Gases, Fertilizer and Petrochemical Refining and Manufacturing	2	1	3	8	2	16	17.0%
Industrial Equipment	1	1	1	1	1	5	5.3%
Meat, Hides and Pelt Products	2	1	0	0	1	4	4.3%
Other Manufacturing, Processing and Packaging Industries	0	1	0	0	1	2	2.1%
Primary Metal (esp. steel) Products	8	9	8	6	7	38	40.4%
Printed and Published Products	0	0	1	1	1	3	3.2%
Wood Products	3	1	3	1	1	9	9.6%
Manufacturing, Processing and Packaging Sector	**20**	**16**	**21**	**20**	**17**	**94**	**100.0%**

Data Source: WCB Data, Prepared by Data Development and Evaluation

CERTIFICATE OF RECOGNITION

A Certificate of Recognition (COR) is given to employers who develop health and safety programs that meet established standards. Certificates are jointly issued by Certifying Partners and E&I[13].

In 2009, 6.1% of employers in the Manufacturing, Processing and Packaging sector were COR holders. These employers accounted for 49.4% of all person-years worked in the Manufacturing, Processing and Packaging sector. The Foundries (not steel), Rubber and Non-metallic Products sub-sector had the highest proportion with 21.9% of employers in this sub-sector holding a valid COR in 2009, covering 69.6% of person-years worked in this sub-sector (see Table 8.1).

Table 8.1
Employers With Valid COR — Alberta: 2009

Sub-Sector	Number of Certified Employers	Total Number of Employers	% of Total Employers Certified	% of Total Person-Years Certified
Manufacturing, Processing and Packaging Sector	**878**	**14,450**	**6.1%**	**49.4%**
Clothing and Textile Products	8	433	1.8%	7.9%
Feed/Seed, Food and Beverage Products	34	601	5.7%	43.6%
Foundries (not steel), Rubber and Non-metallic Products	75	342	21.9%	69.6%
Furniture and Allied Products	5	1,242	0.4%	14.8%
Gases, Fertilizer and Petrochemical - Refining and Manufacturing	27	133	20.3%	55.2%
Industrial Equipment	77	475	16.2%	49.5%
Meat, Hides and Pelt Products	18	149	12.1%	75.0%
Plastic Products	19	152	12.5%	48.2%
Primary Metal (esp. steel) Products	485	8,475	5.7%	48.9%
Printed and Published Products	6	449	1.3%	17.9%
Wood Products	101	1,093	9.2%	65.5%
Other Manufacturing, Processing and Packaging	23	906	2.5%	17.6%

Data Source: WCB Data, Prepared by Data Development and Evaluation

[13] For more information on the COR program visit http://www.employment.alberta.ca/SFW/334.html

In the Manufacturing, Processing and Packaging sector, the lost-time claim rate for COR holders was 1.42 per 100 person-years worked in 2009, while the rate for non-COR holders was 1.90. For disabling injury rates, COR holders had a rate of 5.42 per 100 person-years worked, while the rate for non-COR holders was 3.47 (see Table 8.2).

Comparing COR holders against all non-COR holders provides useful information about each group, although it does not compare like-with-like. A COR is given to employers who develop health and safety programs that meet established standards, with this group seeing continued improvement in their lost-time claim rates. Some non-COR holders have good programs in place above this standard, whereas others do not. This makes evaluating improving health and safety trends less clear for this group.

The two groups also differ significantly in employer structure and size. COR holders account for 6.1% of employers in the Manufacturing, Processing and Packaging sector (see Table 8.1) but 49.4% of the person-years worked. For the Manufacturing, Processing and Packaging sector employers between 10 and 19 person-years and employers between 20 and 39 person-years worked displayed the highest lost-time claim rates (see Table 3.2).

Table 8.2

Lost-Time Claim and Disabling Injury Rates for Manufacturing, Processing and Packaging COR Holders — Alberta: 2008-2009

Employer	Year	Number of Accounts	Person-Years	Lost-Time Claims	Disabling Injury Claims	Lost-Time Claim Rate	Disabling Injury Rate	Change in Lost-Time Claim Rate	Change in Disabling Injury Rate
COR	2008	873	93,091	1,878	6,260	2.02	6.72	-29.7%	-19.3%
	2009	878	82,689	1,171	4,479	1.42	5.42		
Non-COR	2008	13,908	100,611	2,463	4,965	2.45	4.93	-22.4%	-29.6%
	2009	13,572	84,854	1,612	2,946	1.90	3.47		

Data Source: WCB Data, Prepared Data Development and Evaluation

REFERENCES

Alberta Employment and Immigration. "Occupational Injuries and Diseases in Alberta 2009 Summary"

Canadian Standards Association. Z795-03: Coding of Work Injury or Disease Information, June 2003.

de Léséleuc, S., "Criminal Victimization in the Workplace: 2004," Statistics Canada, February 2007.

International Labour Organization, "Decent Work - Safe Work, ILO Introductory Report to the XVIIth World Congress on Safety and Health at Work", September 2005.
http://www.ilo.org/global/Themes/Safety_and_Health_at_Work/lang--en/docName--WCMS_067260/index.html

International Labour Organization. "Facts on Safety and Health at Work issues." April 2009. http://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/documents/publication/wcms_105146.pdf

International Labour Organization. "Safety in Numbers – pointers for a global safety culture at work." 2003.
http://www.ilo.org/public/english/protection/safework/worldday/report_eng.pdf

Statistics Canada. "Guide to the Labour Force Survey" 2010.

The Workers' Compensation Board - Alberta. "Rate and Industry Description Manual".

The Workers' Compensation Board. "2010 Premium Rate Manual".

APPENDIX A: TERMS, DEFINITIONS AND FORMULAS

Lost-Time Claim

A lost-time claim (LTC) is a claim for an occupational injury or disease that causes the worker to have time away from work beyond the day of injury. Included are claims receiving reimbursement of full or partial lost wages due to occupational illness or injury, or payment for permanent loss of function.

Modified Work Claim

A modified work claim is a claim for an occupational injury or disease where a worker had their normal work duties altered to enable them to remain working without losing time from work. Also included are claims where injured workers are helped back into the workplace with modified duties after time lost due to injury or disease.

Disabling Injury Claim

Disabling injury (DI) claims combine both the lost-time and modified work concepts to produce an overall figure where an occupational injury or disease disables the worker causing either time-lost from work or for their normal work duties to be modified.

Person-Years Worked

Person-years worked are estimates calculated from wage and payroll data provided by account holders to the WCB. Alberta Employment and Immigration uses data to estimate an average industry wage, and uses the average industry wage and employer payroll data to estimate person-years worked for each employer and each industry. One person-year is equivalent to one full-time worker working for one year, and can be assumed to equal 2.000 hours worked.

Lost-Time Claim Rate

The lost-time claim rate is calculated by dividing the number of lost-time claims by the person-year estimate, and multiplying the result by 100. The lost-time claim rate represents the probability or risk of an injury or disease to a worker during a period of one-year work, which will result in time lost from work. Comparisons of lost-time claim rates between industries, or between years, can be used to indicate increases, decreases, or differences in this risk.

$$\text{LTC Rate} = \frac{\text{Number of LTC's}}{\text{Person-years worked}} \times 100$$

Disabling Injury Rate

The disabling injury rate is calculated by dividing the number of disabling injury claims by the person-year estimates, and multiplying the result by 100. The disabling injury rate represents the probability or risk of a disabling injury or disease to a worker during a period of one year of work. The disabling injury rate is similar to the LTC rate although it covers a broader range of injuries, including those that are less severe in nature (do not require time away from work). The rate represents the number of claims per 100 person-years worked and includes claims made for both lost-time and modified work.

$$\text{Disabling Injury Rate} = \frac{\text{Number of DI's}}{\text{Person-years worked}} \times 100$$

Duration (Days lost)

The duration of disability is the number of days following the injury or disease for which the worker was disabled and unable to perform normal work duties. This information is obtained for this report from data on compensation days paid on each claim from the WCB. Alberta Employment and Immigration obtains these data on March 31 of the year following the claim year, and does not update the information, even though many injured workers continue to be disabled beyond this date. As a result, the duration information reported here underestimates the true impact of lost-time injury and disease.

Duration Rate

The duration rate is calculated by dividing the number of workdays lost (disability days) by the person-year estimate, and multiplying by 100. The result is expressed as days lost per 100 person-years worked, and indicates, in part, the economic impact of occupational injury and disease. Duration rates are not recommended as reliable indicators of full economic cost. In addition, readers are warned that duration rates are highly unstable when based on only a few lost-time claims; it is recommended that the duration rate not be calculated based upon fewer than 30 lost-time claims.

$$\text{Duration Rate} = \frac{\text{Disability Days}}{\text{Person-years worked}} \times 100$$

Industry Coverage

About 80% of employed persons in Alberta are covered by WCB. This report focuses on all industry activity in Alberta covered by the WCB and by the provincial legislation for occupational health and safety. Most industry sectors are included but notable exceptions consist of the Government of Canada, and parts of the agriculture and finance sectors. Several professional groups (i.e. the teaching and medical professions) are also excluded as are some industries where WCB coverage is not compulsory.

WCB Accepted Fatality

An occupational fatality is the death of a worker which resulted from a work-related incident or exposure and which has been accepted by the WCB for compensation. A fatality is counted in the year it is accepted.

Fatality Rate

The fatality rate is calculated by dividing the number of accepted fatalities by the person-years worked estimate and multiplying the result by one million. The result is expressed as fatalities per million person-years worked. Fatalities that are found under the jurisdiction of the Government of Canada are excluded before the calculation of the fatality rate.

$$\text{Fatality Rate} = \frac{\text{Number of Fatalities}}{\text{Person-years worked}} \times 1{,}000{,}000$$

Number of Times Higher/Lower than the Provincial Average

The number of times higher/lower than the provincial average is used to compare the performance of the industries with the province regarding specific injury or disease. A number less than one indicates that the injury of the industries is lower than the provincial average; if equal to one it indicates the injury of the industries is the same as the provincial average and a number greater than one indicates that the injury of the industries is higher than the provincial average.

$$\frac{\text{Per cent of Total Claims for the Industries} \times \text{Industries' LTC Rate}}{\text{Per cent of Total Claims for the Province} \times \text{Provincial LTC Rate}}$$

Where:

$$\text{Per cent of Total Claims for the Industries} = \frac{\text{Number of LTCs for the Industries (e.g. back injury)}}{\text{Total LTCs for the Industries}} \times 100$$

$$\text{Per cent of Total Claims for the Province} = \frac{\text{Number of LTCs for the Province (e.g. back injury)}}{\text{Total LTCs for the Province}} \times 100$$

Labour Force Survey

The Labour Force Survey (LFS) is a household survey carried out monthly by Statistics Canada. The objectives of the LFS have been to divide the working-age population into three mutually exclusive classifications - employed, unemployed, and not in the labour force - and to provide descriptive and explanatory data on each of these categories. Data from the survey provide information on major labour market trends such as shifts in employment across industrial sectors, hours worked, labour force participation and unemployment rates.

For the most part, annual LFS data has been analyzed alongside injury and disease information to aid the understanding of injury risk or frequency by worker type. The LFS uses a different industry classification from WCB, although there are similarities in structure. Where possible, the two data sources are used comparably and proportions (of totals) have been used to evaluate information generated from both sources. Using proportions attempts to overcome obvious distortions in the numbers in employment from both sources, although the impact on the proportions from industry coverage differences is unclear. In certain instances, monthly LFS micro-data files have been combined and used to produce proportion estimates for the whole year for particular sub-groups of the population.

For further information on the LFS, please see
http://www.employment.alberta.ca/BI/2599.html

APPENDIX B: MANUFACTURING, PROCESSING AND PACKAGING INDUSTRIES WCB CODES

1. Meat, Hides and Pelt Products

01103 – Poultry Loading Services
10100 – Meat Processing
10104 – Rendering Plants
17200 – Tanneries

2. Clothing and Textile Products

17900 – Leather Goods – Manufacturing/Repair
21300 – Rope/Carpet – Manufacturing/Repair
22900 – Crests/Pennants – Manufacturing/Repair
22901 – Drapes/Linens – Manufacturing/Repair/Installation
24900 – Wearing Apparel – Manufacturing/Repair

3. Feed/Seed, Food and Beverage Products

02101 – Seed Cleaning Plants
02112 – Egg Grading
10500 – Dairy Products Processing
11202 – Fruit Juice Processing
12301 – Feed Mills
12400 – Flour Mills
12900 – Bakeries
13100 – Food Processing – Miscellaneous
13101 – Candy Manufacturing
13300 – Beet Sugar Processing
13500 – Vegetable Oils/Yeast Manufacturing
13900 – Malt Manufacturing
13904 – Pasta Manufacturing
13905 – Vegetables Process/Grade
14100 – Soft Drinks/Water/Ice – Manufacturing
14300 – Liquor/Wine – Manufacturing
14500 – Breweries
37402 – Medicine/Vitamin Manufacturing

4. Wood Products

25100 – Saw Mills/Planing Mills
25401 – Wood Products – Manufacturing
25900 – Peel/Point – Posts
25901 – Treating of Timber
27102 – Pulp Mills
27103 – Panelboard – Manufacturing

5. Furniture and Allied Products

26101 – Upholstered Furniture – Manufacturing/Repair
26104 – Furniture Refinishing
42147 – Finishing Carpentry

6. Printed and Published Products

27402 – Envelope Manufacturing
28600 – Printing/Book Binding
28800 – Publish without Printing
28900 – Publish with Printing
86202 – Newspaper/Flyer Distribution
89301 – Electronic Print/Photofinishing

7. Foundries (not Steel), Rubber and Non-metallic Products

16901 – Tires/Rubber Products – Manufacturing
27200 – Asphalt Roofing Products – Manufacturing
29700 – Foundry – Non-ferrous
34100 – Pre-mixed Cement – Manufacturing
34500 – Gypsum Board – Manufacturing
34700 – Concrete Products – Manufacturing
34702 – Artificial Stone Products – Manufacturing
34800 – Transit Mix Operations
35200 – Clay Bricks – Manufacturing
35401 – Fibreglass Insulation – Manufacturing
38500 – Fibreglass Reinforced Products – Manufacturing

8. Primary Metal (esp. Steel) Products

26401 – Metal Furniture Manufacturing
29100 – Steel Manufacturing – excluding Foundries
29102 – Foundries, Iron and Steel
29200 – Steel Pipe Manufacturing
30100 – Steel/Metal Fabrication
30101 – Heat Treating/Stress Relieving
30403 – Metal/Porcelain Products – Coating
30407 – Pipe Cleaning/Coating
30412 – Sheet Metal Shops
30700 – Heat/Cooling Equipment Manufacturing
30801 – Machining
33602 – Switchboard/Electrical Panel – Manufacturing
33606 – Industrial Electric Equipment – Manufacturing
62500 – Steel Service Centre – No Salvage
62700 – Scrap/Salvage Dealers
89401 – Welding

9. Industrial Equipment

16902 – Industrial Belting – Installation/Service
38100 – Instrumentation – Manufacturing

62304 – Compressors/Power Unit – Manufacturing

10. Gases, Fertilizer and Petrochemical – Refining and Manufacturing

36500 – Refining – Crude/Used Oil
37201 – Fertilizer Manufacturing/Nickel Refining
37801 – Petrochemicals – Manufacturing
37805 – Industrial Gases – Manufacturing

11. Plastic Products

37301 – Plastic Products – Manufacturing

12. Other Manufacturing, Processing and Packaging Industries

07900 – Peat Moss – Harvesting/Processing
12304 – Forage Processing
16900 – Rubber Stamps/Stencils – Manufacturing
17901 – Vinyl Goods – Manufacturing /Repair
22101 – Awnings/Tents/Tarps – Manufacturing /Repair
27300 – Cardboard Box/Tubing/Bag – Manufacturing
28603 – Signs/Advertising Displays – Manufacturing
29600 – Aluminum/Metal Extrusion
33500 – Phone Equipment – Manufacturing /Installation
33900 – Light Fixtures – Manufacturing /Assembly
33902 – Electrical Components – Manufacturing
38200 – Jewelry – Manufacturing
38201 – Lapidary Services
39300 – Sporting Equipment/Brooms – Manufacturing
39701 – Outdoor Advertising
39901 – Picture Frame, Case, Casket – Manufacturing
69903 – Pottery – Manufacturing
86201 – Window/Store Display Ad Services
89916 – Taxidermists

CONTACT INFORMATION

For further information about the data presented in this report contact:

Government of Alberta
Employment and Immigration
Data Development and Evaluation
2nd Floor, 10808 – 99 Avenue
Edmonton, Alberta
T5K 0G5

Telephone: 780-427-8531, toll free by calling 310-0000
Fax: 780-422-5070
Email: whs@gov.ab.ca

Employment and Immigration website:

http://employment.alberta.ca

Work Safe Alberta website:

www.worksafe.alberta.ca

Occupational Health and Safety Contact Centre:

Telephone: 780-415-8690, toll free by calling 1-866-415-8690

http://www.employment.alberta.ca/SFW/2874.html

Certificate of Recognition (COR) Program:

http://www.employment.alberta.ca/SFW/334.html